

wherein the polyester polyol consists essentially of an acid component and a polyhydric alcohol, the acid component consisting of naphthalenedicarboxylic acid, and optionally a dimer acid and/or phthalic acid;

wherein the laminate adhesive satisfies the following requirement:

when a composite film is produced by coating opposed first and second surfaces of an aluminum foil having a thickness of 9 μm with the laminate adhesive in an amount of 2.5g/m² by weight of a solid content of the adhesive per unit area by use of a dry laminator or a solvent-free type laminator, by adhering a polyethylene terephthalate film having a thickness of 12 μm to the first surface of the aluminum foil and an unextended polypropylene film having a thickness of 70 μm to the second surface, and by curing the adhered films at 50°C for 3 days, to produce the composite film; and

when cyclic ester compounds eluted from the laminate adhesive are measured by forming a bag from the composite film, filling the bag with ion-exchange distilled water in an amount of 0.5mL/cm² per unit area of the interior surface of the bag, sterilizing the bag by heated water under a pressure of 19.6 x10⁴ Pa at 120°C for 30 minutes, extracting the water contained in the bag in a solid phase modified with an octadecyl group, drawing a sample from the extract, dissolving the sample in methanol in an amount of one hundredth of the original amount of water contained in the bag, and measuring the presence of cyclic ester compounds in the sample by gas chromatography-flame ionization,

wherein the cyclic ester compounds are present at a concentration of 0.5 ppb or less per 0.5mL/cm² of the composite film, as determined by gas chromatograph-flame ionization using dibutyl phthalate as a reference compound.

Claim 2 is directed to:

The laminate adhesive according to Claim 1, wherein the polyester polyol further comprises a polyhydric alcohol component comprising ethylene glycol and/or propylene glycol

Claim 4 is directed:

The laminate adhesive according to Claim 1, wherein cyclic urethane compounds extracted from a volume of water, and eluted from the laminate adhesive through a composite film bonded with the laminate adhesive into the volume of water, where the volume of water is equivalent to 0.5mL/cm² of the composite film, are present at a concentration of 0.5 ppb or less per 0.5mL/cm² of the composite film, as determined by gas chromatograph-flame ionization using dibutyl phthalate as a reference compound.

In the Rule 132 Declaration, a laminate adhesive of Example 1 of USP 3,892,820 (reference cited by the Examiner) is prepared and evaluated according to the same evaluation as in the specification of the present invention. In the evaluation, after preparing a composite film, a bag is made from the composite film, and then the elution test is conducted for showing that cyclic ester compound is eluted from the composite film.

The first named inventor of the present invention, Shigetoshi Sasano, conducted the test as described above and it was found that using the laminate adhesive of the Example of USP 3,892,820, a composite film could be prepared. However the bag made from the composite film was delaminated during the sterilization. As a result, the elusion test could not be conducted.

Therefore, it is not possible to demonstrate the elution of a cyclic ester compound with the laminate adhesive of Example 1 of USP 3,892,820.

On the other hand, the claimed laminate adhesive is capable of preparing a composite film which does not undergo delamination during sterilization, as well as having the reduced elution of cyclic ester compound property according to claim 1.

Accordingly, the Applicant has demonstrated that the laminate adhesive of the cited reference is distinctly different than the laminate adhesive of the present invention. Moreover, the comparative experiment demonstrates that the laminate adhesive of the present invention is distinctly superior to the laminate adhesive of the cited reference in adhesive property for lamination.

In view of the foregoing, it is respectfully submitted that all grounds of rejection set forth in the last Action have been overcome, and that the application is now in condition for allowance. Accordingly, such allowance is solicited.

Respectfully submitted,

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